

External ID

Name	Muster	Date of Birth	13.12.1941	Order ID	11636043
First Name	Muster	Sex	Female	Order Date	29.11.2018
Sampling Date	26.11.2018 10:00	Validation Date	Thomas Gugereel	Findings Status	Final Report
Sample Material	S	Validation on	30.11.2018	Findings Date	03.12.2018

Test	Result	Unit	Standard Range	Previous Result
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Allergy and Intolerance Diagnostics

IgG4 Foodscreen

Test	Unit kU/l	Rastklasse 1 2 3 4 5 6
Cereal containing gluten		
Spelt	0,62	1
Oats	<0,35	
Rye	1,45	2
Wheat	2,86	2
Gluten	2,31	2
Gluten-free cereal		
Amaranth	<0,35	
Quiona	<0,35	
Millet	0,52	1
Corn	<0,35	
Buckwheat	<0,35	
Rice	<0,35	
Meat, Fish, Egg		
Egg	52,73	5
Beef	<0,35	
Fish	<0,35	
Meat pool	<0,35	
Fruit		
Kiwi	<0,35	
Grapes	<0,35	
Banana	<0,35	
Apple	1,00	2
Peach	<0,35	
Orange	<0,35	
Pineapple	<0,35	
Fruit pool	<0,35	
Yeasts		
Baker's yeast	<0,35	

Test	Unit kU/l	Rastklasse 1 2 3 4 5 6
Milk products		
Casein	71,06	5
Milk pool	0,78	2
Vegetables, Salads		
Spinach	<0,35	
Potato	<0,35	
Bell pepper	<0,35	
Tomato	0,76	2
Carrot	<0,35	
Celery	<0,35	
Avocado	<0,35	
Vegetable pool	<0,35	
Legumes		
Soy bean	<0,35	
Green bean	0,89	2
Peanut	<0,35	
Legumes pool	<0,35	
Nuts, seeds		
Hazelnut	1,86	2
Sunflower seeds	<0,35	
Sesame	<0,35	
Almond	>101,0	6
Nuts, seeds pool	<0,35	
Herbs, Spices		
Mustard seed	<0,35	
Garlic	<0,35	
Black pepper	<0,35	
Parsley	<0,35	
Spice pool	<0,35	

Fish pool: Cod fish, Tuna fish, Salmon
 Fruit pool: Cherry, Strawberry, Melon
 Legumes Pool: Green pea, Locust bean, Lentil
 Meat pool: Pig, Duck, Chicken, Lamb
 Milk pool: Lactoglobuline (cow), Lactalbumine (cow), Goat's milk, Sheep's milk, Mare's milk
 Nuts, Seed pool: Walnut, Brazil nut, Linseed, Cashew nut
 Spices pool: Caraway, Dill, Vanilla
 Vegetables pool: Cabbage, Onion, White mushroom, Fennel

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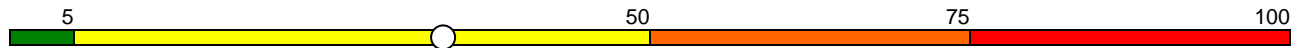
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IgG₄

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The **Index IgG₄** describes the extent of sensitizations or immune reactions. High indices > **50** come along with increased intestinal mucosa permeability.



IgG₄ Food Screen

Food intolerances can have many causes. Aside from classical food allergies caused by IgE antibodies, pseudo-allergies or carbohydrate intolerances (lactose, fructose), particularly IgG₄-mediated intolerances are of growing significance. These are surely not allergies in the classical sense, although IgG₄ can cause allergy similar symptoms by releasing histamine from mast cells or basophile granulocytes. Far more often, however, intolerance reactions caused by IgG₄ antibodies express themselves in form of unspecific symptoms, which generally only occur hours or days after consumption of the responsible foods. Non-distinctive gastro-intestinal disorders (flatulence, constipation, diarrhoea etc.) are described just as often as symptoms of the skin (eczema, neurodermatitis, itching etc.). Frequently patients complain about chronic fatigue syndromes, susceptibility to infection(s) or hyperactivity (children).

The IgG₄ intolerance test of Mr. /Ms. Muster showed distinctly increased antibody concentrations against:
Almond, Casein, Egg

Principle of Dietary Changes in Case of Conspicuous IgG₄ Findings

High IgG₄ antibody concentrations in blood mostly correlate with an increased permeability of the intestinal mucosa (**increased intestinal permeability**). This allows allergens to pass the intestinal mucosa in larger amounts. Antibodies directed against food develop (sensitisation) and often as a consequence also clinically manifested intolerance reactions.

IgG mediated intolerances rarely remain for life. They regress. This, however, is only possible by temporary consequent **elimination** of not tolerated foods and **stabilization of mucosa conditions**. In case of foods with low antibody concentrations elimination is not required – here **rotation diets** suffice during which the respective foods are only consumed every 3 or 4 days. With the aid of rotation diets further increases of antibody concentrations are counteracted and prevented that an already existing sensitization becomes a clinically manifested intolerance.

Expert's Advice

In case of casein intolerance milk and milk products have to be avoided. As casein is not typical also goat's, sheep's or mare's milk are affected. Other than for lactalbumin intolerance, also heated milk products are not tolerated if there are reactions against casein.

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Therapeutic Approach

A. Change of Diet

- All foods (or food pools) with positive results starting **at EAST-category 3** should be eliminated from the diet. Foods of **category 3** should be avoided for **2 months**. Food of the **EAST categories 4, 5 or 6** should be systematically omitted for **at least 3 months**.
- For foods with antibody concentrations of **categories 1 and 2** we recommend a **rotation diet** – during which the respective foods are only consumed every 3 or 4 days.

B. Mucosa Stabilizing Measures

An increased permeability leads to inflammatory changes of the intestinal mucosa by an increased release of pro-inflammatory cytokines. The increased translocation of antigens favours the development of autoimmune diseases as well as the sensitization to food.

In case of increased mucous membrane permeability the following **therapeutic measures, proven by studies**, are possible:

According to studies, the administration of **phosphatidylcholine** (lecithin) will promote the development of an effective mucous membrane barrier by stabilizing and strengthening the mucosa (for example Colon Guard). Since **glutamine** is a nutrient of the intestinal epithelial cells, it prevents mucous membrane irritations or a "leaky gut", why it can also be given (e.g. Colon Guard, L-Glutamine, Adamin G, Aminoplus[®] Glutamin).

Modern **multi-strain probiotics** not only support the microflora but also have an anti-inflammatory effect. Omni-Biotic Stress Repair causes not only a decrease of pro-inflammatory cytokines but significantly reduces the permeability of the intestinal mucosa, too (Holzer 2007, 2010, 2011, Akkermans 2010). Alternatives of similar composition or indication: Ecologic 825, Synbiotic Neuro Fit, Lactobact Forte.

Furthermore **humic acids** have a direct influence on the mucosa permeability. They cover the mucosa with a film and thereby reduce the permeability. Humic acids form a **protective film** on the brush border, seal the mucosa and penetrate into goblet cells, whereby their number, the villi length and **mucosa production** increase (Kühnert 2010a, 2010b).

With kind regards

Your Biovis-Diagnostik

Attention: The recommendations given are only advice based on the compiled findings and possible clinical information. They are exclusively addressed to the therapist/physician and are **not intended** for direct transfer to the patient. They cannot replace diagnosis and therapy of the treating therapist. The recommendations for therapy are a suggestion. The responsibility for the final selection/measure/dosage lies with the medical professional/therapist responsible for each individual case. Please also note that there may be contraindications/interactions associated with the recommended medication/nutritional supplements for pre-existing primary diseases and when taking certain medication. These must be investigated by the medical professional/therapist before starting therapy.

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List of tolerated and not tolerated foods

We had no anamnestic information regarding already existing food allergies or intolerances.

- Group 1** Foods not reacting in the test.
Group 2 Foods with low IgG antibody concentrations. They should be eaten in rotation every 3 or 4 days to avoid further increase of sensitizations.
Group 3 Foods to be eliminated for 2 months.
Group 4 Foods to be eliminated for at least 3 months.

Group 1	Group 2	Group 3	Group 4
Amaranth	Apple		Almond
Avocado	Gluten		Casein
Baker's yeast	Green bean		Egg
Banana	Hazelnut		Goat's milk
Beef	Millet		Lactalbumine (cow)
Bell pepper	Oats		Lactoglobuline (cow)
Black pepper	Rye		Mare's milk
Brazil nut	Spelt		Sheep's milk
Buckwheat	Tomato		
Cabbage	Wheat		
Caraway			
Carrot			
Cashew nut			
Celery			
Cherry			
Chicken			
Cod fish			
Corn			
Dill			
Duck			
Fennel			
Garlic			
Grapes			
Green pea			
Kiwi			
Lamb			
Lentil			
Linseed			
Locust bean			
Melon			
Mustard seed			
Onion			
Orange			
Parsley			
Peach			
Peanut			
Pig			
Pineapple			
Potato			
Quiona			
Rice			
Salmon			
Sesame			
Soy bean			

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Group 1	Group 2	Group 3	Group 4
Spinach Strawberry Sunflower seeds Tuna fish Vanilla Walnut White mushroom			